



CLAIMS PENDING IN SERIAL NO. 09/813,446

31. (amended) An optical switch, comprising:

an array of actuated mirrors configured for switching an optical beam from an input port to an output port;

said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

said optical switch configured for switching said at least one wavelength component from an input port to an output port.

32. (amended) An optical switch, comprising:

an array of actuated mirrors configured for switching an optical beam from at least one input port to at least one output port;

said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

said optical switch configured for switching said at least one wavelength component from at least one input port to at least one output port.

33. (amended) An optical switch, comprising:

an array of actuated mirrors configured for switching an optical beam from any input port to any output port;

said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

said optical switch configured for switching said at least one wavelength component from any input port to any output port.

34. (amended) An optical switch, comprising:

at least one array of actuated mirrors configured for switching an optical beam from an input port to an output port;

said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

said optical switch configured for switching said at least one wavelength component from an input port to an output port.

35. (amended) An optical switch, comprising:

at least one array of actuated mirrors configured for switching an optical beam from at least one input port to at least one output port;

said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

said optical switch configured for switching said at least one wavelength component from at least one input port to at least one output port.

36. (amended) An optical switch, comprising:
at least one array of actuated mirrors configured for switching an optical beam from any input port to any output port;
said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;
said optical switch configured for switching said at least one wavelength component from any input port to any output port.

37. An optical switch as recited in claim 31, 32, 33, 34, 35, or 36, further comprising means for positioning said optical beam onto at least one array of actuated mirrors.

38. An optical switch as recited in claim 37, wherein said means for positioning comprises at least one lens.

39. An optical switch as recited in claim 31, 32, 33, 34, 35, or 36, further comprising at least one imaging component configured for positioning said optical beam onto at least one array of actuated mirrors.

40. An optical switch as recited in claim 39, wherein said imaging component comprises at least one lens.

41. An optical switch as recited in claim 31, 32, 33, 34, 35, or 36, wherein said optical switch is configured for a specific mirror in at least one array of actuated mirrors to receive an optical beam from a corresponding one specific input port.

42. An optical switch as recited in claim 31, 32, 33, 34, 35, or 36, wherein said optical switch is configured for a specific output port to receive an optical beam from a corresponding one specific mirror in at least one array of actuated mirrors.

43. An optical switch as recited in claim 31, 32, 33, 34, 35, or 36,
wherein said optical switch is configured for a specific mirror in at least one array of actuated mirrors to receive an optical beam from a corresponding one specific input port; and

wherein said optical switch is further configured for a specific output port to receive an optical beam from a corresponding one specific mirror in said at least one array of actuated mirrors.

44. An optical switch as recited in claim 31, 32, 33, 34, 35, or 36, wherein at least one array of actuated mirrors comprises a two-dimensional array.

45. (amended) An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;
- (c) an array of actuated mirrors configured for switching an optical beam from

an input port to an output port;

(d) said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

(e) said optical switch configured for switching said at least one wavelength component from an input port to an output port.

46. (amended) An optical switch, comprising:

(a) at least one input port;

(b) at least one output port; and

(c) an array of actuated mirrors configured for switching an optical beam from at least one said input port to at least one said output port;

(d) said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

(e) said optical switch configured for switching said at least one wavelength component from at least one said input port to at least one said output port.

47. (amended) An optical switch, comprising:

(a) at least one input port;

(b) at least one output port; and

(c) an array of actuated mirrors configured for switching an optical beam from any said input port to any said output port;

(d) said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

(e) said optical switch configured for switching said at least one wavelength component from any said input port to any said output port.

48. (amended) An optical switch, comprising:

(a) at least one input port;

(b) at least one output port; and

(c) at least one array of actuated mirrors configured for switching an optical beam from an input port to an output port;

(d) said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

(e) said optical switch configured for switching said at least one wavelength component from an input port to an output port.

49. (amended) An optical switch, comprising:

(a) at least one input port;

(b) at least one output port; and

(c) at least one array of actuated mirrors configured for switching an optical beam from at least one said input port to at least one said output port;

(d) said optical switch configured for separating at least one wavelength

component in said optical beam from at least one other wavelength component of said optical beam;

(e) said optical switch configured for switching said at least one wavelength component from at least one said input port to at least one said output port.

50. (amended) An optical switch, comprising:

(a) at least one input port;

(b) at least one output port; and

(c) at least one array of actuated mirrors configured for switching an optical beam from any said input port to any said output port;

(d) said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

(e) said optical switch configured for switching said at least one wavelength component from any said input port to any said output port.

51. An optical switch as recited in claim 45, 46, 47, 48, 49, or 50, further comprising means for positioning said optical beam onto at least one array of actuated mirrors.

52. An optical switch as recited in claim 51, wherein said means for positioning comprises at least one lens.

53. An optical switch as recited in claim 45, 46, 47, 48, 49, or 50, further comprising at least one imaging component configured for positioning said optical beam onto at least one array of actuated mirrors.

54. An optical switch as recited in claim 53, wherein said imaging component comprises at least one lens.

55. An optical switch as recited in claim 45, 46, 47, 48, 49, or 50, wherein said optical switch is configured for a specific mirror in at least one array of actuated mirrors to receive an optical beam from a corresponding one specific input port.

56. An optical switch as recited in claim 45, 46, 47, 48, 49, or 50, wherein said optical switch is configured for a specific output port to receive an optical beam from a corresponding one specific mirror in at least one array of actuated mirrors.

57. An optical switch as recited in claim 45, 46, 47, 48, 49, or 50, wherein said optical switch is configured for a specific mirror in at least one array of actuated mirrors to receive an optical beam from a corresponding one specific input port; and

wherein said optical switch is further configured for a specific output port to receive an optical beam from a corresponding one specific mirror in said at least one array of actuated mirrors.

58. An optical switch as recited in claim 45, 46, 47, 48, 49, or 50, wherein at least one array of actuated mirrors comprises a two-dimensional array.

59. An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;
- (c) an input array of actuated mirrors; and
- (d) an output array of actuated mirrors;
- (e) said input and output arrays of actuated mirrors configured for switching

an optical beam from an input port to an output port.

60. An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;
- (c) an input array of actuated mirrors; and
- (d) an output array of actuated mirrors;
- (e) said input and output arrays of actuated mirrors configured for switching

an optical beam from at least one said input port to at least one said output port.

61. An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;
- (c) an input array of actuated mirrors; and

- (d) an output array of actuated mirrors;
- (e) said input and output arrays of actuated mirrors configured for switching an optical beam from any said input port to any said output port.

62. An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;
- (c) at least one input array of actuated mirrors; and
- (d) at least one output array of actuated mirrors;
- (e) said input and output arrays of actuated mirrors configured for switching an optical beam from an input port to an output port.

63. An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;
- (c) at least one input array of actuated mirrors; and
- (d) at least one output array of actuated mirrors;
- (e) said input and output arrays of actuated mirrors configured for switching an optical beam from at least one said input port to at least one said output port.

64. An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;

- (c) at least one input array of actuated mirrors; and
- (d) at least one output array of actuated mirrors;
- (e) said input and output arrays of actuated mirrors configured for switching an optical beam from any said input port to any said output port.

65. An optical switch as recited in claim 59, 60, 61, 62, 63, or 64, further comprising means for positioning said optical beam onto at least one input array of actuated mirrors.

66. An optical switch as recited in claim 65, wherein said means for positioning comprises at least one lens.

67. An optical switch as recited in claim 59, 60, 61, 62, 63, or 64, further comprising at least one imaging component configured for positioning said optical beam onto at least one input array of actuated mirrors.

68. An optical switch as recited in claim 67, wherein at least one imaging component comprises at least one lens.

69. An optical switch as recited in claim 59, 60, 61, 62, 63, or 64, wherein said optical switch is configured for a specific mirror in at least one input array of actuated mirrors to receive an optical beam from a corresponding one specific input port.

70. An optical switch as recited in claim 59, 60, 61, 62, 63, or 64, wherein said optical switch is configured for a specific output port to receive an optical beam from a corresponding one specific mirror in at least one output array of actuated mirrors.

71. An optical switch as recited in claim 59, 60, 61, 62, 63, or 64,
wherein said optical switch is configured for a specific mirror in at least one input array of actuated mirrors to receive an optical beam from a corresponding one specific input port; and

wherein said optical switch is further configured for a specific output port to receive an optical beam from a corresponding one specific mirror in at least one output array of actuated mirrors.

72. An optical switch as recited in claim 59, 60, 61, 62, 63, or 64, wherein each mirror in at least one input array of actuated mirrors is configured to steer an incident optical beam to any, but not more than one for a given setting, mirror in at least one output array of actuated mirrors.

73. An optical switch as recited in claim 59, 60, 61, 62, 63, or 64, wherein each output mirror in at least one output array of actuated mirrors can be set to receive an optical beam from any, but not more than one for a given setting, mirror in at least one input array of actuated mirrors.

74. An optical switch as recited in claim 59, 60, 61, 62, 63, or 64,
wherein each mirror in at least one input array of actuated mirrors is configured
to steer an incident optical beam to any, but not more than one for a given setting,
mirror in at least one output array of actuated mirrors; and
wherein each output mirror in at least one output array of actuated mirrors can
be set to receive an optical beam from any, but not more than one for a given setting,
mirror in at least one input array of actuated mirrors.

75. An optical switch as recited in claim 59, 60, 61, 62, 63, or 64, wherein at
least one array of actuated mirrors comprises a two-dimensional array.

76. An optical switch as recited in claim 59, 60, 61, 62, 63, or 64, wherein at
least one output array of actuated mirrors is spatially separated from at least one input
array of actuated mirrors.

77. (amended) An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;
- (c) an input array of actuated mirrors;
- (d) an output array of actuated mirrors; and
- (e) at least one imaging component configured for positioning an optical
beam onto said input array of actuated mirrors;
- (f) wherein said optical switch is configured for a specific mirror in said input

array of actuated mirrors to receive an optical beam from a corresponding one specific input port; and

(g) wherein said optical switch is further configured for a specific output port to receive an optical beam from a corresponding one specific mirror in said output array of actuated mirrors.

78. (amended) An optical switch, comprising:

- (a) at least one input port;
 - (b) at least one output port;
 - (c) a least one input array of actuated mirrors;
 - (d) at least one output array of actuated mirrors; and
 - (e) at least one imaging component configured for positioning an optical beam onto at least one input array of actuated mirrors;
- (f) wherein said optical switch is configured for a specific mirror in an input array of actuated mirrors to receive an optical beam from a corresponding one specific input port; and
- (g) wherein said optical switch is further configured for a specific output port to receive an optical beam from a corresponding one specific mirror in an output array of actuated mirrors.

79. (amended) An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;

- (c) a least one input array of actuated mirrors;
- (d) at least one output array of actuated mirrors; and
- (e) at least one imaging component configured for positioning an optical beam onto at least one input array of actuated mirrors;
- (f) wherein said optical switch is configured for a specific mirror in at least one input array of actuated mirrors to receive an optical beam from a corresponding one specific input port; and
- (g) wherein said optical switch is further configured for a specific output port to receive an optical beam from a corresponding one specific mirror in at least one output array of actuated mirrors.

80. An optical switch as recited in claim 77, 78, or 79, wherein at least one imaging component comprises at least one lens.

81. An optical switch as recited in claim 77, 78, or 79, wherein each mirror in at least one input array of actuated mirrors is configured to steer an incident optical beam to any, but not more than one for a given setting, mirror in at least one output array of actuated mirrors.

82. An optical switch as recited in claim 77, 78, or 79, wherein each output mirror in at least one output array of actuated mirrors can be set to receive an optical beam from any, but not more than one for a given setting, mirror in at least one input array of actuated mirrors.

83. An optical switch as recited in claim 77, 78, or 79,
wherein each mirror in at least one input array of actuated mirrors is configured to steer an incident optical beam to any, but not more than one for a given setting, mirror in at least one output array of actuated mirrors; and
wherein each output mirror in at least one output array of actuated mirrors can be set to receive an optical beam from any, but not more than one for a given setting, mirror in at least one input array of actuated mirrors.

84. An optical switch as recited in claim 77, 78, or 79, wherein at least one array of actuated mirrors comprises a two-dimensional array.

85. An optical switch as recited in claim 77, 78, or 79, wherein at least one output array of actuated mirrors is spatially separated from at least one input array of actuated mirrors.

86. (amended) An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;
- (c) an input array of actuated mirrors;
- (d) an output array of actuated mirrors; and
- (e) at least one imaging component configured for positioning an optical beam onto said input array of actuated mirrors;
- (f) wherein each mirror in said input array of actuated mirrors is configured to

steer an incident optical beam to any, but not more than one for a given setting, mirror in said output array of actuated mirrors; and

(g) wherein each output mirror in said output array of actuated mirrors can be set to receive an optical beam from any, but not more than one for a given setting, mirror in said input array of actuated mirrors.

87. (amended) An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;
- (c) at least one input array of actuated mirrors;
- (d) at least one output array of actuated mirrors; and
- (e) at least one imaging component configured for positioning an optical beam onto at least one input array of actuated mirrors;
- (f) wherein each mirror in an input array of actuated mirrors is configured to steer an incident optical beam to any, but not more than one for a given setting, mirror in an output array of actuated mirrors; and
- (g) wherein each output mirror in an output array of actuated mirrors can be set to receive an optical beam from any, but not more than one for a given setting, mirror in an input array of actuated mirrors.

88. (amended) An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;

- (c) at least one input array of actuated mirrors;
- (d) at least one output array of actuated mirrors; and
- (e) at least one imaging component configured for positioning an optical beam onto at least one input array of actuated mirrors;
- (f) wherein each mirror in at least one input array of actuated mirrors is configured to steer an incident optical beam to any, but not more than one for a given setting, mirror in at least one output array of actuated mirrors; and
- (g) wherein each output mirror in at least one output array of actuated mirrors can be set to receive an optical beam from any, but not more than one for a given setting, mirror in at least one input array of actuated mirrors.

89. An optical switch as recited in claim 86, 87, or 88, wherein at least one imaging component comprises at least one lens.

90. An optical switch as recited in claim 86, 87, or 88, wherein at least one array of actuated mirrors comprises a two-dimensional array.

91. An optical switch as recited in claim 86, 87, or 88, wherein at least one output array of actuated mirrors is spatially separated from at least one input array of actuated mirrors.

92. An optical switch as recited in claim 86, 87, or 88, wherein said optical switch is configured for a specific mirror in at least one input array of actuated mirrors to

receive an optical beam from a corresponding one specific input port.

93. An optical switch as recited in claim 86, 87, or 88, wherein said optical switch is configured for a specific output port to receive an optical beam from a corresponding one specific mirror in at least one output array of actuated mirrors.

94. An optical switch as recited in claim 86, 87, or 88,
wherein said optical switch is configured for a specific mirror in at least one input array of actuated mirrors to receive an optical beam from a corresponding one specific input port; and

wherein said optical switch is further configured for a specific output port to receive an optical beam from a corresponding one specific mirror in at least one output array of actuated mirrors.